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Published on alternate Wednesdays, during the school year, by the students of the Massachusetts Institute of Technology.

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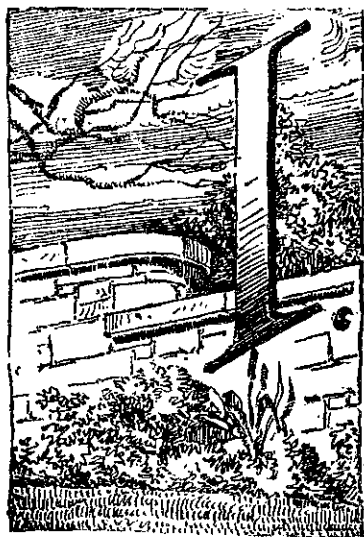
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IN this issue we publish an abstract of the report of the Committee on the Rogers Memorial, and a statement of the matter as it stands at present. We desire to call the attention of every student in the Institute to this report, and we hope that each, after giving it careful consideration, will find

himself in full sympathy with the movement, and willing to assist in carrying it to a successful completion. There has been, as is stated, a delay of several weeks, and it is now fully time to have the question finally settled. If a majority of the students have an active interest in the matter, — and we think they have, — there is no doubt but that the proposed plan will be made a success; but if, as has been the case so far, the appeals of the committee are met by indifference, or an unwillingness to assist, the only course will be to let the matter drop completely.

If the committee are forced to take the latter course, we think it will be regarded as an humiliating failure, if not a standing disgrace to the school. Such a matter as this, which involves and is, indeed, a test of the better feelings of the students, should not be allowed to drag on indefinitely, but by united effort should be satisfactorily completed at once.

LAST Saturday's games in the gymnasium have given a clearer idea of what work is needed to bring our in-door sports to the level of those of other institutions, or even to our standing of last year.

As a whole, the games were inferior; none of the records were more than fair, and of a few it may be better not to speak. In no event were our previous records surpassed, or even reached. In a number of events only two or three men appeared out of six or seven names on the schedule, and this is a matter which deserves attention.

The principal interest centred in the tugs-of-war, and though these, as exhibitions of pulling, may be praised, yet when so large a part of the afternoon was taken up with them, there may be good reason for expression of dissatisfaction.

We do not intend to throw discredit on the managers of the sports, for, under the circumstances, they have done as well as could be expected; but the need is plainly shown for much more thorough practice in the gymnasium, and this by an increased number of men, before our former records can be surpassed, and a series of events contested of which the Athletic Club may be proud.

We understand that, socially and financially, the games were successful, and for this the credit is due the managers.

IF articles for publication are handed in at the time specified there is usually no difficulty in publishing and delivering the paper on the day it is dated; but if, as has been the case at nearly every issue, important copy does not reach the editor until some time after the time it is due, it becomes impossible to issue the paper on Wednesday, and it is delayed until Friday or later. It is very desirable that each number should appear on its specified day, and all delays are very annoying to the editors, and give dissatisfaction to subscribers. We request that, hereafter, contributors, whether on the staff of the paper or not, will make special effort to get matter in on time.

The Rogers Memorial.

ON Friday, Oct. 27, 1882, a mass meeting of the students was called to consider the project of a memorial of the late president of the Institute, Prof. William B. Rogers. A committee was appointed to have general charge of the matter, and its report, made to a subsequent meeting, is appended:—

The committee appointed by the students of the Institute to investigate the subject of a memorial of the late President Rogers submit the following report:—

1. The members of the committee were unanimously in favor of erecting a suitable memorial.

2. They recommend that it be peculiarly a student memorial, and that the sum required for its erection be raised by contributions from the students exclusively.

Other organizations with which President Rogers was connected may intend to establish memorials, and, in the opinion of the committee, it would not be within the province of the students, nor would it be feasible, to attempt to take the lead in this matter, and invite the co-operation of these organizations in the establishment of a joint memorial.

In considering the circumstances of President Rogers's death, during the graduating exercises of the class of '82, and the association which this class must ever have with his name on account of this sad event, it has appeared to the committee that especially should the class of '82 be represented in this memorial. It is therefore recommended that all students at the institution during the last year of President Rogers's life be invited to contribute to the fund.

In regard to the present Freshman class, the committee have considered that this class, as fully as any which have preceded it, is indebted to the life and work

of President Rogers for the advantages which this institution affords; and, also, as its members were students here at the time when this memorial movement originated, it was thought only just, therefore, that the class should be included, and its members be invited to contribute.

3. The committee, regarding the movement as expressing the deep feeling of the students towards the founder of the school, and as testifying to their appreciation of his devoted and untiring service in its behalf, are of the opinion that the value of the tribute will lie far more in the fact that it is a unanimous expression of this feeling than in the great cost or elaboration of the memorial itself; and they recommend that the total amount to be raised for this purpose be placed at a relatively moderate figure.

4. As it is desirable, in the first place, that this expression of feeling should be unanimous, it is recommended that the amounts solicited from individuals should not exceed or fall below certain limits, such that the amounts subscribed may be nearly equal, and within the means of every student. With these limits fixed at one dollar and two dollars it has been thought probable that the above requirements would be fulfilled, and no student need feel that a contribution is more than he can afford, or, on the other hand, be ashamed to give an amount which might otherwise seem small.

5. With such a contribution the committee are confident of a total subscription of nearly five hundred dollars.

A prominent sculptor in this city has been consulted, and his opinion given that for this sum a bronze tablet about two and a half by three feet, with a medallion head of President Rogers and suitable decorations and inscriptions, could be procured. Such a tablet placed in the entrance hall of the building would no doubt give entire satisfaction to the students themselves and all friends of the institution, and would stand as a testimonial of the students' appreciation of President Rogers's manly character and great services for the Institute, of which the members of the school now and hereafter may well be proud.

H. WARD LEONARD.

HARVEY S. CHASE.

A. LAWRENCE ROTCH.

H. G. PRATT.

A. S. PERCY.

At the mass meeting in November to which the above report was submitted, it was resolved to defer action until a canvass of the classes should be made, and the committee feel assured of the interest of the students, and ascertain positively the amount which would be pledged.

Subscription papers have since been circulated in each of the four classes in the school, and

nearly three hundred dollars have been pledged. The class of '02, at a meeting in December, considered the project of uniting with the present students, but decided to await the action of the Alumni in regard to a memorial, before giving a definite answer. The Alumni, at the annual meeting in January, decided to defer all action on the question for at least two years, until the association should be in condition to erect a fitting and satisfactory memorial.

Although no formal assent has been given by '82, the committee are of the opinion that the members of the class favor the plan as given in the report, and desire to assist.

It is necessary, in order to have the memorial completed before the next school year, to place an order for a tablet in the hands of a competent sculptor as soon as possible. The present outlook is favorable, and the committee desire to have final action taken by the school at once. A meeting has been called for Friday, March 2, at 4.30 P. M., in Room 4, and every student is requested to be present.

The Baldwin Locomotive Works.

THE visit of the S. M. E. Society to this world-renowned establishment in Philadelphia was rendered especially interesting through the courtesy of Mr. E. H. Williams, one of the firm, who accompanied the party. The drawing-room was first visited. We were told that no blue copies were sent to the shops, drawings on cards and tracings being substituted. The drawings of the different forms and sizes of each piece used in a locomotive are pasted together in books and indexed for reference.

The model-room, adjoining, presented a comprehensive view of the progress of American locomotive engineering, and a brief review of it may be interesting. Matthew Baldwin, in 1832, built an engine called "Old Ironsides," for the Germantown and Norristown Railroad. It was made after the English practice of the day; had cylinders nine and one half by eighteen inches, and weighed four tons. Wood was used

for the spokes and rims of the wheels, as well as for the frame of the engine. The iron frame and "half-crank" were introduced in 1834, during which year five engines were built and the shop removed to its present site. Other improvements were the ground steam-joint, a combination of wood and iron in the driving wheels, and the flexible beam truck, which allowed the forward drivers to be formed into a truck to accommodate themselves to curves, and yet be connected by a side rod to the back drivers. The standard American locomotive of to-day, with four drivers and a four-wheeled truck, was adopted by Mr. Baldwin in 1846; but later a fast passenger engine for the Vermont Central Railroad was built which had cylinders seventeen and one quarter by twenty inches, and a single pair of drivers six and one-half feet in diameter. It is said that this engine could start from a state of rest and run a mile in forty-three seconds. The adoption of the link motion completed the modern locomotive, excepting a few minor details. Our attention was called to the model of a sleeping car, with a monitor top, which was run in 1845 on the Cumberland Valley Railroad, though it was not patented till 1862. In another place an upright stationary engine made by Mr. Baldwin before 1830, was shown us. It occupied little space and had been almost constantly in use, though it has been partially rebuilt recently. Proceeding into the shops, we were told that each engine had its own department, where all the small pieces belonging to it were kept. All work is accurately fitted to gauges, which are made from a system of standards kept exclusively for the purpose. Like parts will, therefore, fit accurately in all locomotives of the same class. We saw a good example of this in the straps of a connecting rod, which fitted equally well another rod. In going through the various shops, we were impressed with the system. Frames are planed and slotted to gauges, and drilled to steel-bushed templets, cylinders are bored and planed, and steam-ports, with valves and steam chests, finished and fitted

to gauges. In short, every bolt about the engine is made to a gauge, and every hole drilled and reamed to a templet. In all the departments specimens of good work are accessible to the workmen, and no deviation from them is allowed. In the boiler shop the riveting is done by steam, hydraulic, and hand power, and some of the flanging is also done by hand. There were engines in various stages of construction. A ten-wheeled "consolidation" engine for the Lehigh Railroad had cylinders twenty by twenty-four inches and weighed one hundred and four thousand pounds. Near by were small narrow-gauge engines, probably for some mine. Since 1876 the firm has built street-car motors.

The 5,000th locomotive, built in 1880, was for fast passenger service on the Bound Brook Route, and was designed to run with a light train at sixty miles per hour and to burn anthracite coal. It had cylinders eighteen by twenty-four inches, and one pair of drivers six and one half feet in diameter. What a contrast to the "Old Ironsides," which was nearly a year in building! The present capacity of the works is ten locomotives per week, and 563 were built last year. We saw No. 6,581, half finished. Nine acres of ground are occupied by the various buildings and yards, and 3,000 men are employed. All parts of locomotives and tenders, except the boiler and tank plates, the steel tires and steel forgings, chilled wheels, boiler tubes, and some of the furniture, are here made from the raw material. The plant consists of nearly 800 machine tools and drawings, and patterns for over 500 different sizes or styles of locomotives, for all existing gauges and every description of service, are included in the working lists.

A. L. R.

On Thursday evening the excursionists left Philadelphia for New York, where Friday and Saturday were spent, with headquarters at the Grand Central Hotel.

THE NEW YORK STEAM HEATING COMPANY.

The very interesting works of this company were visited on Friday morning. The steam

which is at present consumed by its customers is supplied by six Babcock & Wilcox boilers, of 250 horse-power each; and it is the intention of the company to ultimately afford a capacity for 8,000 horse-power from thirty-two boilers, which are to be conveniently arranged with eight on each of the first four floors of their very solid and well-constructed building.

The coal to be used under these boilers is carried to the top of the building by an elevator, and stored in bins, so arranged that it may be delivered through perpendicular chutes near the door of each furnace, and only as fast as it is needed. In connection with the furnaces is an immense chimney, 220 feet high, 32 feet 6 inches by 13 feet at the base, and 27 feet 10 inches by 8 feet 4 inches at the top.

The great difficulty of providing for the expansion and contraction of the street mains has been overcome by means of patent expansion joints which admit of considerable play in either direction and still preserve a steam-tight joint.

The condensed steam which collects in the mains is drawn off and forced back to the boilers by two powerful pumps in the basement of the station.

As an instance of the efficiency of the system, we were shown through the kitchen of a very large restaurant, which "feeds more people than any other in the world," where the cooking is all done by steam supplied by station "B" of the Steam-Heating Company's works.

We also visited a Weston electric light station, whose 18" x 24" double Corliss engine was driven very satisfactorily by steam from the same source.

D. M'R.

THE STEVENS INSTITUTE.

The Stevens Institute of Technology, at Hoboken, N. J., is distinctively a school of mechanical engineering, and afforded especial interest to the members of the excursion. Upon their visit, Friday afternoon, they were kindly received and conducted through the buildings by Prof. Robert H. Thurston, Professor of Mechanical Engineering. In the museum are preserved many articles of scientific and historic interest.

Here is the first screw propeller, together with the engine and boiler, built in 1804, by John Stevens. Near by are to be found early forms of sectional and water-tube boilers.

The odors of H_2S and the like quickly convinced the party of the presence of a chemical laboratory. This laboratory contains about forty desks fitted and arranged much like those in our own building.

In the drawing-rooms were found about one hundred and five solid, substantial drawing tables. The work here consists mainly of inked drawings upon white paper. Much of this work is drawn to scale from measurement of the original; and planer, lathe, and other details were readily recognized in inspecting the drawings. The absence in many cases of all dimensions on the drawings was noted, as was also the fact that very little use is here made of tracing cloth or of the blue process. Considerable attention is, however, paid to the design of machinery, and the catalogue gives an extended list of machines designed, and in some cases even built, by the students.

The workshops, with the exception of the foundry, forge, and steam-fitting shops, which are in the main building, are all in one room, covering a space of fifty feet by eighty feet. Extending around this room, at a height of twelve feet, is a gallery fifteen feet wide. The machine shop boasts of some excellent machinery, in the shape of seven engine lathes, two planers, a Buckeye engine, a milling machine, wood and brass turning lathes, drill presses, emery wheels, chucks, etc. While at our own Institute the lathes are all of the same make, at Stevens no two engine lathes are to be found either of the same make or of the same size, the idea being to familiarize the students with the different forms of machines, as made by different builders, to serve the same purpose. The course of shop instruction is very similar to our own, and, therefore, requires no detailed explanation.

In the physical laboratory the party found the usual experimental apparatus, but attention was especially drawn to an electro-magnet of extraor-

dinary strength. The familiar experiment of holding a magnet below a sheet of paper covered with iron fillings was here repeated, with planer chips in a large wooden tray.

Finally, entering Prof. Thurston's private study, the party was confronted and surrounded by models, drawings, works upon mechanical engineering, recorded results of experiments, and theses whose pages were in many cases numbered by hundreds.

Taken as a whole, this institution seems to rank with the best of the kind in the country. Devoting itself as it does to instruction in only one branch of engineering, it is enabled to maintain a corps of efficient instructors, who are specialists in, and can devote themselves entirely to, certain branches of mechanical engineering.

The students in the school now number one hundred and thirty-two, and of these twelve will probably graduate this year. W. B. S.

Railway Speeds.

EDITOR OF THE TECH:—In connection with your article on fast railway trains the following data regarding velocities as regulated by law in Germany may interest some of your readers.

For grades less than $\frac{1}{200}$, and curves with a greater radius than 1,000 metres (3,281 feet) the following velocities must not be exceeded:—

Passenger trains	75 kil. (about 47 miles) per hour.
Freight	45 kil. (" 28 ") " "
Gravel and repair	30 to 45 kil. (" 19 to 28 ") " "

These velocities must be diminished when the grade is over $\frac{1}{200}$, or the curves of smaller radius than 1,000 metres.

In special cases, with the consent of the directors, passenger trains may be run up to 90 kil. (about 56 miles) per hour. There are also some limitations depending on the construction of the locomotive.

A locomotive alone, running ahead, must not exceed 40 to 50 kil. (25 to 31 miles) per hour, except in some special cases. Running back-

wards, with tender ahead, whether alone, or drawing a train, it must not exceed 30 kil. (19 miles) per hour.

G. F. S.

The Mining Engineers.

THE annual meeting of the American Society of Mining Engineers will open Tuesday, Feb. 20, and continue four days.

On Wednesday and Friday mornings, and Wednesday evening, sessions will be held in Room 4, at the Institute of Technology.

On Wednesday, Thursday, and Friday, excursions will be made to various places of interest in this vicinity, including the Leavitt Sewage Pumping Engine, the Norway Iron Works, Harvard College, where a session will be held, and the Water Power and Mills, at Lowell.

Athletics.

THE winter meeting of the M. I. T. Athletic Club was held last Saturday afternoon, in the new gymnasium, before a large and enthusiastic audience, the fair sex being well represented. The games, despite the little preparation of the men, were a decided success, and, though no remarkable records were made, yet some good work was done by the club. The following were the order of events:—

Running High Jump.—For this there were three contestants, — du Pont, sp. '84; Haines, '84; and Kimball, '85. Haines took first place, with a record of 5 feet 2 $\frac{3}{4}$ inches; Kimball, second, with 5 feet 1 $\frac{3}{4}$ inches.

First Light Tug-of-War.—(Five minutes limit.) Between team No. 2, consisting of C. A. Deshon, anchor, Douglass, Bardwell, and F. B. Richards; and Team No. 1, consisting of W. H. Dawes, anchor, J. W. Hinckley, C. R. Jordan, and J. R. Case. Team No. 2 got the drop by about 3 inches, which they easily retained, thus giving them first place.

On account of the illness of Harriman it was decided to omit sparring.

Putting Shot.—Three contestants, Haines, '84; du Pont, sp. '84; and Cutter, '85. From the first throw the contest was seen to be between

Haines and Cutter. Both put the shot exceedingly well, but Haines proved too much for Cutter, winning by a score of 32 feet 2 $\frac{1}{4}$ inches against Cutter's 31 feet 10 $\frac{1}{2}$ inches.

Running High Kick.—Despite the six entries for this event, only two men appeared, — du Pont and Haines. Du Pont won first medal, with 8 feet 4 inches, the same record made by him at the last winter games. Haines reached 8 feet 2 $\frac{1}{2}$ inches.

Second Light Weight Tug-of-War (team Nos. 2 and 3). — Team No. 3 consisted of A. Hamill, anchor, R. F. Stahl, H. M. Wilson, and W. L. Dearborn. No. 2, the winner of the previous heat, got the drop by about 2 inches, but good pulling by Hamill carried the ribbon to the scratch, where it remained, a dead heat being called.

Fencing.—(First bout.) W. L. O'Brien, Jr., versus W. H. Bunce. This was the event of the afternoon, as was expected (!) and the audience was in no way disappointed. O'Brien won, 7 points to 6.

Standing High Jump.—F. M. Haines, first, with 4 feet 5 inches; T. C. du Pont, second, with 4 feet 3 inches.

Fence Vault (handicap). — Haines took first medal, with 6 feet 9 $\frac{3}{4}$ inches; W. L. Dearborn, second, with 6 feet 4 inches.

Fencing (second bout). — O'Brien against McKim. Notwithstanding the brilliant record made a short time before by O'Brien, McKim won the bout 7 points to 1.

In the class tugs only the three lower classes were represented, '83 withdrawing on account of the illness of two of her number.

First Class Tug-of-War ('84 and '85). — '84 consisting of F. M. Haines, T. C. du Pont, W. H. Bunce, anchor, and N. Ward; '85 consisting of D. Baker, anchor, H. G. Pratt, H. A. Magoun, and F. H. Cutter. '84 got the drop by an inch, but the ribbon was carried back to the scratch by the stretch of the rope, where it remained until near the end of the tug, when a quick heave by Baker carried it over the line two inches, in favor of '85. This was kept, giving the team first place.

Third Light Weight Tug-of-War (teams Nos. 1 and 3). — Won by team No. 3 by 3 inches.

Middle Weight Tug-of-War ('84 and '85). — Called a dead heat.

Final Light Weight Tug-of-War (between teams Nos. 2 and 3). — Won by No. 2 by two inches.

The pole vault had but two entries, and, after a few trials, the splintering of the plank which received the spike of the pole rendered a continuation dangerous, and it was given up. Deshon, '85, and Bennett, '86, entered.

Department Notes.

IN the recent numbers of the *American Architect* there have been published several competition designs for the \$3,000 house. The designs show careful study, and, as specifications and prices were required, much time must have been spent upon them outside the design. The prize for best designs has not been awarded yet.

The new problem for the Seniors is the frontispiece of Greek fragments which was so popular last year. There will not be as many this year to compete for "First Mention"; but it is hoped that what there is lacking in quantity will be made up in quality.

Mr. Leonard has been employing the following process for getting the copper out of his copper matte: The ground matte is digested with sulphuric acid and water, forming a solution of copper nitrate; bits of scrap-iron are then immersed in the liquid, and the copper forms a loose coating on the outside of the iron as in the Swedish assay of copper. When the copper is entirely separated from the solution the liquor is siphoned off, and the copper scale smelted with a little silica, in order to remove any iron that may be present.

Mr. Mansfield, after an unsuccessful attempt to smelt his copper products in the cupelling furnace, has been remodelling one of the reverberatory furnaces by enlarging the fire bed and making a new flue. The furnace is about ready

for use, and if it proves as successful as anticipated, it will be a great addition to the Metallurgical Laboratory.

Mr. Harden has finished his gold ore. The ore was crushed in the stamps and then run over amalgamating plates, and the heavy particles separated out by means of the Spitz Kasten. The latter product was then run over the Evans table.

The '83 chemists have nearly all finished their proof analyses, and are at work upon their thesis. Mr. Underwood is the only one who is taking organic chemistry, and his thesis will be under that head.

Part of the third-year class in Mining and Chemistry are hard at work at assaying in the mining laboratory.

Mr. Morse has begun on his galena ore.

The following advantages are derived from the use of the paper rail. The cost per mile is much less than that of steel, and it will also last a great deal longer; as there is no expansion or contraction from heat or cold there can be no loose or open joints, but, instead, the road may be as smooth as one continuous rail. The same weight engine will, upon a track of this material, haul a larger load, as the adhesion of the drivers is greater, and the smoothness of the rail will also lessen the wear and tear of the rolling stock.

At least one hundred and fifteen bridges have been destroyed by the recent floods in the West.

The Mechanical Engineer reports a curious effect produced on a wrought iron forging by a human hair. The forging was in a cold press and subjected to a pressure of two hundred tons to the square inch. A hair taken from the head of a bystander was placed on the face of the forging and the full pressure applied. The result was that the hair was driven into the forging and imbedded in it. The hair was uninjured during the operation, and removed intact.

The production of Bessemer steel ingots has increased from 560,587 tons, in 1877, to 1,696,450 tons, in 1882.

There has been some talk lately of a so called portable electric lamp, said to be capable of furnishing, by means of a battery, an illumination similar to that of the well-known incandescent electric light. *The Electrician* states that the apparatus referred to is in reality a portable electric *gas-lighter*. By pressing a knob the current of a battery in the base of the machine is sent through a spiral of platinum wire, which is thereby rendered incandescent, and can be used for the instantaneous lighting of gas, an oil lamp, or other equally inflammable matter. Though this apparatus is not adapted to electric lighting, it is interesting to note that a similar principle was employed for that purpose as early as 1850, by Prof. Moses G. Farmer, who lighted his house by incandescent platinum coils, using, of course, larger spirals and more powerful batteries. The rapid oxidation of the platinum and the enormous cost of this method of lighting, as compared with gas, led him to abandon its use.

A glass-blowing machine is illustrated in the *Scientific American* of January 20, which is very simple and ingenious, and destined to cheapen considerably the production of the globes of incandescent lamps, and similar articles. The glass tube to be operated upon is revolved in a lathe provided with hollow spindles, through which air may be forced in from a reservoir. A blowpipe flame is then directed upon any part of the tube, which may be blown at the heated part into a bulb, and drawn out or pressed in by moving the headstock.

In "Dr. Doran's Memoirs of Great Towns in England," it is stated that in Birmingham an order was filled for 3,000 tacks, — 1,000 of gold, 1,000 of silver, and 1,000 of iron, — the whole 3,000 weighing exactly 3 grains.

A Card.

NUMEROUS students, especially those of the Freshman class, have a mistaken idea that the reading-rooms are places for general conversation. If this delusive idea could be dispelled, it would be a great benefit to those who wish to study or read.

A SUFFERER

List of Publications, M. I. T.

MASS. INSTITUTE OF TECHNOLOGY. — Eighteenth Annual Catalogue, 1882-83. Pph. 8vo, pp. 102. Boston, 1882.

Σ M. E. SOCIETY. — The Σ M. E. Society, its origin, objects, etc. Pph. 12mo, pp. 18. Boston, 1883.

CLASS OF '81. — Class Directory, etc. Pph. 12mo, pp. 12. 1882.

BARRUS, GEORGE H. ('74). — Tests of Passenger Locomotives on the Boston and Albany. *R. R. Gazette*, November, 1882.

CROSS, CHARLES R. ('70). — On Induction. A Letter to *Telegraphic Journal and Electrical Review*, XI., No. 261, pp. 4-15.

EDMUNDS, J. RAYNER ('69). — The Mountains between Saco and Swift Rivers. [With map.] *Appalachia*, III (1882), 57.

———. — Bear Mountain. *Id.* III. (1882), 69-71.

HENCK, J. B., JR. ('76). — A Visit to Milan as Delegate to the Fourteenth Annual Congress of the Italian Alpine Club, 1881. *Appalachia*, III. (1882), 13-19.

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HYATT, ALPHEUS (Prof.). — Remarks on Distortions of Lobsters' Claws. *Proc. Bost. Soc. Nat. Hist.*, XXI., 278.

LANZA, GAETANO (Prof.). — An Account of certain Tests of the Transverse Strength and Stiffness of Large Spruce Beams. *Journ. Frank. Inst.*, February, 1883.

MINOT, CHARLES SEDGWICK ('72). — Comparative Morphology of the Ear. Part. III. *Amer. Journ. Otology*, IV. (1882), 1-16. Part IV. *Id.* IV. (1882), 89-101.

PICKERING, W. H. ('79). — A new Contour Map of the Presidential Range. [With Plate.] *Appalachia*, III. (1882), 54-59.

———. — Reports of the Councillors: Explorations. *Id.*, IV., 68, 69.

———. — The Great Gulf, Mounts Passaconaway and Whiteface. *Id.* IV., 71-73.

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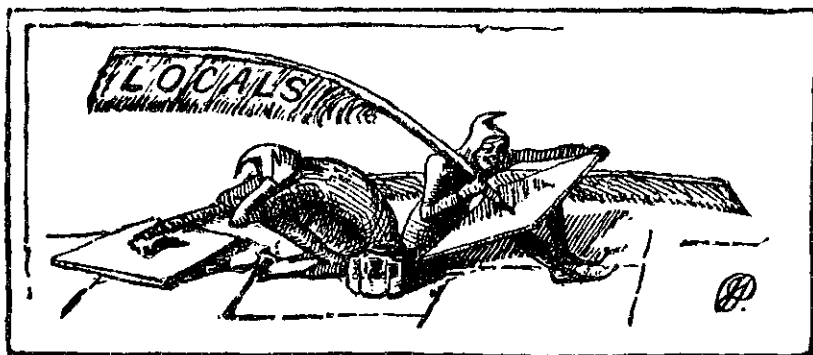
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CONVERSING with young ladies deprived of speech is described as exercise with dumb belles.

Wonder where Gold, '83, got his new hat?

A Glee Club is being formed at the Institute.

S—h has decided to buy a good candle and strike out.

Those of '83 who desire albums for class pictures will please report to the committee.

Several men would like to know if there is a shower bath in the gymnasium? If so, why is it locked up?

We would call the attention of students to the offer of Wm. K. Millar & Co., who give ten per cent discount to them.

Now that the lines of the Tennis Court have been repainted we hope to see more students practising that enjoyable game.

An '86 says there is reason to believe that if matters don't go on differently there will be a dead Locke in the board of editors.

'84 has recently given her class president a couple of severe tests in parliamentary knowledge. It is unnecessary to say that he passed with H.

At a fancy dress party recently given at the Olympian Rink, E. W. Kingsbury, special architect, '83, took the first prize, which consisted of a silver service.

When a fellow has been rejected by the girl to whom he has been paying attention, it might be said to be a case of he *woo-ed* and she *would n't*.

At a recent meeting of the V. L. Club Mr. C. A. Brown and A. D. Little, both of '85, were formally elected as members of the club. Their initiations will soon take place.

One of the Institute men, wearing the Institute necktie, on a recent visit home was re-

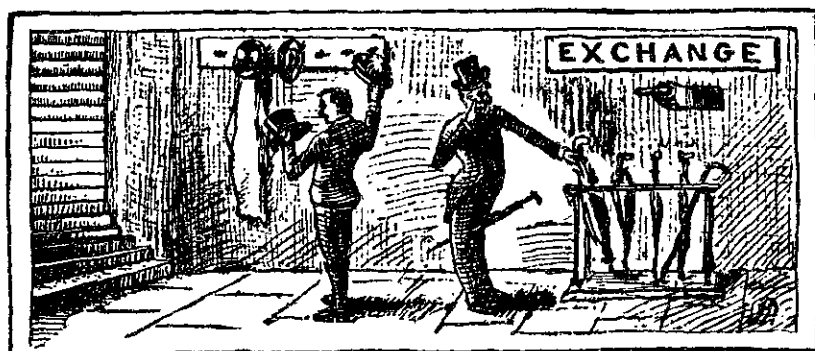
minded by his sister that it bore too striking a resemblance to a barber's pole to look well.

The young ladies at Vassar are required to spend two hours on French previous to each recitation, and some, with that fertile imagination characteristic of them, get over the difficulty by sitting on the book while attending lectures in other subjects.

Students who have availed themselves of the opportunity of having their photos taken at the some rates as the Senior class will please remember that they cannot get their photographs before May, because the photographers desire to do all the printing at one time, after the lists are all in.

The 2. G. Society has given a start to social life at the Institute by issuing invitations to its first dance, which will be given Friday, March 2, in Berkeley Hall. The dance, we understand, is not to be a large one, and therefore but comparatively few at the Institute outside the society will be invited to attend. The committee in charge of the dance consists of Frank Tenney, H. Ward Leonard, R. H. Hardon, George H. Capen, and Theodore W. Robinson.

Over a door in a certain hotel in Montreal the following inscription arrests the astonished gaze of the stranger: "Physiognomical Hairdresser, Tonsorial Artist, Cranium Manipulator, Facial Operator, and Capillary Abridger." If the traveller recovers from the shock due to the perusal of this legend, and enters the mysterious portal, he is awestruck by the announcement on a placard that the being in whose presence he stands is a "Professor of Cranicultural Abscission and Craniological Tripsis"! But when the professor says, "How you do, sir? it's a fine day; have a chair; ready in a few minutes, sir. Stranger in town, I presume. Have you seen Mrs. Langtry, sir? *Next!*" then it rapidly dawns upon his bewildered intellect that he is in a barber's shop, and he drops into a chair, places his feet on the radiator, and takes up the *Police News* to await his turn.



IN order to relieve Senior editors as much as possible from duties other than those attendant upon graduation, the editorial boards of most of the college papers very properly undergo their annual change about this time. With the close of the volume the names of the editors, if previously suppressed, are published, and we find that, although THE TECH has been criticised for having so large a board, it is, nevertheless, quite behind many of its exchanges in this respect. When, as has happened with our own, — and doubtless with other papers, — the editors have been obliged to furnish every word for certain issues, the advantage of a large board becomes apparent.

The Intercollegiate Press Association was apparently wound up too tight, for it has for some time ceased to make itself heard. It is to be regretted that a paper like the *Acta Columbiana*, a sheet which devotes itself to humor of the sort which finds its most complete expression in the misnamed comic valentine, should occupy so high a position in an association whose objects are reform and progress. If, as we are led to suppose, the *Acta* represents the standard of the Association, the great majority of our exchanges may congratulate themselves that, judged by that standard, they could not obtain admission.

For the benefit of our friend of the green cover, the *Dartmouth*, we will state that the son of Ex-President Hayes, who has just entered the Institute of Technology, completed his course here some eight months ago. Of course, we knew that Daniel Webster was dead. We read a life of him in his dictionary, years ago.

The prolific College of the City of New York has produced another literary representative,

the *College Journal*. It is printed on glazed paper, and has a cover.

The *University Magazine* scores one by the publication of the first poem on Spring.

Clippings.

ANNALS of a quiet neighborhood: Tombstone records.

Taken at the flood: The ark. — *Puck*.

On a bust, — Poe's raven. — *Lampoon*.

Yale has a large, new physical laboratory in process of erection.

It is said that '86 has voted to do no hazing next year. — *Colby Echo*.

"Still a popular favorite," said Brown to Jones, the architect; "still drawing good houses." — *Bazar*.

A lacrosse convention is to be held in Cambridge on the morning of February 22d. — *Crimson*.

On each busy day at the gymnasium, Friday and Saturday, over 12,000 gallons of water are used. — *Harvard Herald*.

The *Advertiser* is our authority for the statement that a Bowdoin Senior has invented an improvement on the spectroscope that promises to be of considerable value.

"If Jones undertakes to pull my ears," said a loud-mouthed fellow, on a street corner, "he will have his hands full." The crowd looked at the fellow's ears and smiled. — *Ex*.

A Durfee man announces that he has discovered a perpetual-motion machine. His gas meter went ahead registering all summer, although the house was locked up at the beginning of the vacation. — *True Flag*.

"When does school commence again?" The Freshman turns up his nose, and says he does not know. The Sophomore laughs uproariously, and does not answer at all. The Junior smiles politely, and explains that we generally say "college" here; but the Senior answers promptly, "Next Thursday." — *Record*.

THE TECH.

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Fresh, stroking his upper lip,
"Come down."

Some one says Macduff must
have been a Frenchman. Léon
Macduff.

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great way leave it out of doors.
It has been known to go two or
three miles.

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absence, John?" "No mum!
but Mr. Thank Heavens did,
leastways when I told him
you were out and asked what
name to give you, he said,
kind of low like, 'Missed
her, thank heavens!'" — *Ex.*

First Boy. Say Johnny;
I saw something in a horse-
car that would tickle you.

Second Boy. Is that so?
What was it?

First Boy. A straw. (*Mer-
ited resolution of First Boy
into mince meat.*)

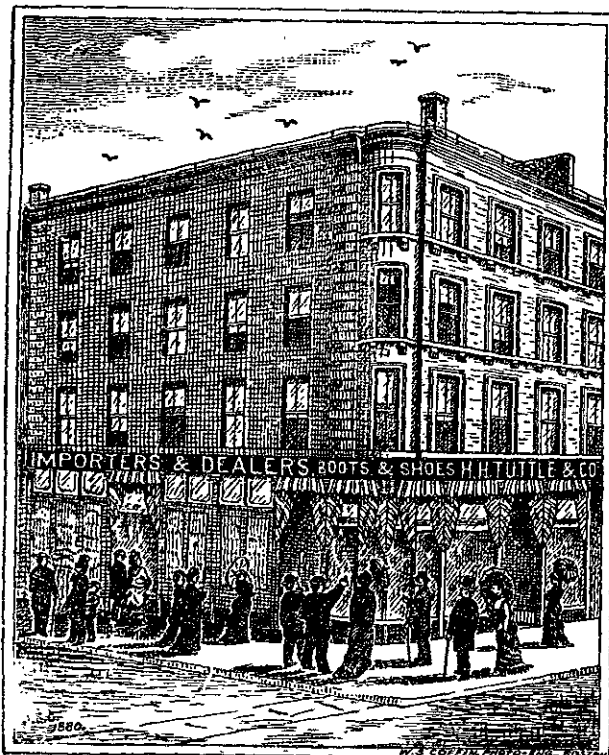
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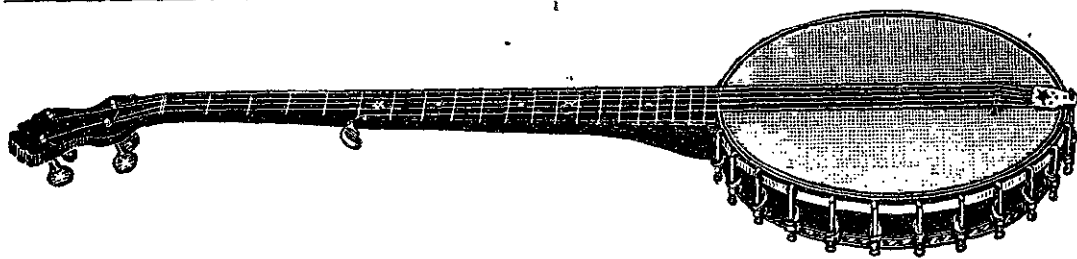
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It is desired that all the Sigma Gazelles shall be present at the next regular meeting, to be held at the rooms on the evening of Feb. 26, as final arrangements for the next excursion are to be made.

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Junior (on the train, to young mother with a noisy baby). — I beg pardon, madam; but can I be of assistance to you?

Young Mother. — No, I thank you. (More squealing.)

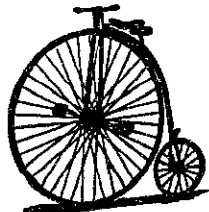
Junior. — You had better let me try; I think I can quiet it.

Young Mother (innocently). — No, I guess not, thank you: the poor little darling is hungry, that's all. — Cornell Sun.

In Liege a company has been formed to purify sewage by filtering it through slag made in the manufacture of mild steel. It is said that the slag can afterwards be made available as manure.

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